FILE 'REGISTRY' ENTERED AT 18:29:33 ON 11 MAR 2010

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STRUCTURE FILE UPDATES: 10 MAR 2010 HIGHEST RN 1208531-15-0
DICTIONARY FILE UPDATES: 10 MAR 2010 HIGHEST RN 1208531-15-0

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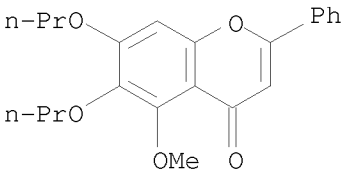
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s 792923-69-4
L1 1 792923-69-4
(792923-69-4/RN)

=> d

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN
RN **792923-69-4** REGISTRY
ED Entered STN: 06 Dec 2004
CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)
MF C22 H24 O5
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus uspatful

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.59	2.81

FILE 'CAPLUS' ENTERED AT 18:29:49 ON 11 MAR 2010

FILE 'USPATFULL' ENTERED AT 18:29:49 ON 11 MAR 2010

=> s l1
L2 4 L1

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3 4 DUP REM L2 (0 DUPLICATES REMOVED)

=> d ibib abs hitstr 1-4

L3 ANSWER 1 OF 4 USPATFULL on STN

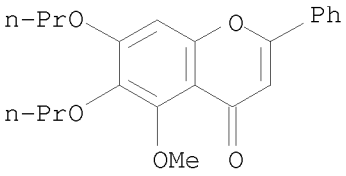
ACCESSION NUMBER:	2008:141942 USPATFULL		
TITLE:	Image display system		
INVENTOR(S):	Kim, Sung Kyu, Seoul, KOREA, REPUBLIC OF		
PATENT ASSIGNEE(S):	KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY (non-U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20080123173	A1	20080529
APPLICATION INFO.:	US 2006-586822	A1	20061026 (11)
	NUMBER		DATE
PRIORITY INFORMATION:	KR 2006-89063		20060914
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Charles N.J. Ruggiero, Esq, Ohlandt, Greeley, Ruggiero & Perle, L.L.P., 10th Floor, One Landmark Square, Stamford, CT, 06901-2682, US		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Page(s)		
LINE COUNT:	399		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed is a display system capable of providing two and three-dimensional images. The display system comprises display means; a first polarizer located at a distance from a front surface of the display means; a display panel provided to a front of the first polarizer and regulating a polarization direction of light having passed through the first polarizer; and a second polarizer located at a distance from a front surface of the display panel, wherein each pixel of the second polarizer has a size of dividing a unit pixel of the display panel into two parts and two polarization states of each pixel are orthogonal to each other. By applying the structure, it is possible to manufacture a display system having a resolution increased by two times, as compared to a conventional display system. Accordingly, when developing a high resolution image display system requiring enormous development costs, it is possible to manufacture it using the two types of display systems. As a result, it is possible to inexpensively manufacture a high resolution and high definition display system. Further, it is possible to provide a three-dimensional image without decreasing the resolution of the display system, and to provide the multi-view points twice as many as the conventional multi-view points, without decreasing the unit view point resolution of the

three-dimensional image.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **792923-69-4P**
(preparation of baicalein A ring analogs with anti-P-glycoprotein activity)
RN 792923-69-4 USPATFULL
CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)



L3 ANSWER 2 OF 4 USPATFULL on STN
ACCESSION NUMBER: 2007:184612 USPATFULL
TITLE: Compounds and methods to increase anti-p-glycoprotein activity of baicalein by alkylation on the a ring
INVENTOR(S): Cheng, Yung-chi, Woodbridge, CT, UNITED STATES
Lee, Yashang, New Haven, CT, UNITED STATES
Yeo, Hosup, Daegu, KOREA, REPUBLIC OF
PATENT ASSIGNEE(S): YALE UNIVERSITY, New Haven, CT, UNITED STATES, 06511 (U.S. corporation)

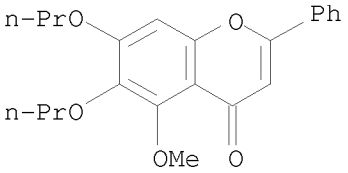
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 20070161605	A1	20070712	
APPLICATION INFO.:	US 2005-586822	A1	20050131	(10)
	WO 2005-US2910		20050131	
			20061013	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 2004-541443P	20040203 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: COLEMAN SUDOL SAPONE, P.C., 714 COLORADO AVENUE, BRIDGE PORT, CT, 06605-1601, US
NUMBER OF CLAIMS: 49
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 1918
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to analogs of baicalein according to formula (I): where R.sup.5 is H, (C.sub.1-C.sub.12)alkyl, (C.sub.2-C.sub.13)acyl, or an optionally substituted phenyl or benzyl group, an acyl group, a C.sub.1-C.sub.20 alkyl or ether group, a phosphate, diphosphate, triphosphate or phosphodiester group; R.sup.6 and R.sup.7 are each independently H, (C.sub.1-C.sub.12)alkyl, (C.sub.2-C.sub.13)acyl, or an optionally substituted phenyl or benzyl or together form a --OCR.sup.1R.sup.2O-- group wherein each of R.sup.1 and R.sup.2 is independently H, a C.sub.1-C.sub.3 alkyl group or an optionally substituted phenyl or benzyl group; and R.sup.8 is H, OH, an O-acyl group, a C.sub.1,-C.sub.4 alkyl or alkoxy group, F, Cl, Br or I, or a pharmaceutically acceptable salt thereof, which exhibit anti-P-glycoprotein activity and methods of enhancing the bioavailability of active compounds, especially orally administered

compounds, by inhibition of P-glycoprotein 170 (P-gp 170) and/or CYP450 enzyme, especially CYP450 3A4 enzyme. Pharmaceutical compositions based upon these novel derivatives according to the present invention are also described herein.

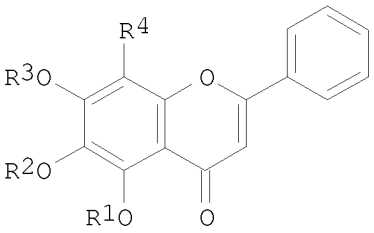
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **792923-69-4P**
(preparation of baicalein A ring analogs with anti-P-glycoprotein activity)
RN 792923-69-4 USPATFULL
CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)



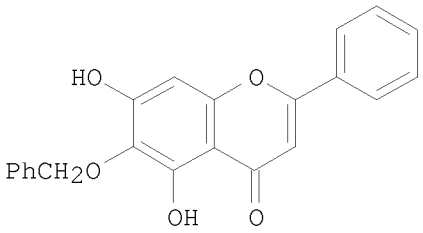
L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:823682 CAPLUS
DOCUMENT NUMBER: 143:211769
TITLE: Preparation of A ring alkylated baicalein analogs with anti-P-glycoprotein activity
INVENTOR(S): Cheng, Yung-Chi; Lee, Yashang; Yeo, Hosup
PATENT ASSIGNEE(S): Yale University, USA
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005075449	A1	20050818	WO 2005-US2910		20050131
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
US 20070161605	A1	20070712	US 2006-586822		20061013
PRIORITY APPLN. INFO.:			US 2004-541443P	P	20040203
			WO 2005-US2910	W	20050131

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 143:211769; MARPAT 143:211769
GI



I



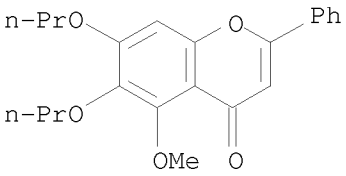
II

AB Baicalein analogs of formula I [R1 = H, (substituted) Ph, benzyl, acyl, alkyl, etc.; R2, R3 = H, alkyl, acyl, etc.; R2R3 = (substituted) CH2; R4 = H, OH, acyloxy, alkyl, alkoxy, halo] are prepared which exhibit anti-P-glycoprotein activity. The compds. have enhanced bioavailability by oral administration, and inhibit P-glycoprotein 170 (P-gp 170) and/or CYP450 enzyme, especially CYP450 3A4 enzyme. Pharmaceutical compns. containing I are described. Thus, II was prepared from baicalein and benzyl bromide, and had EC50 value of 1.8 μM against human P-gp 170.

IT **792923-69-4P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of baicalein A ring analogs with anti-P-glycoprotein activity)

RN 792923-69-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:770227 CAPLUS

DOCUMENT NUMBER: 141:405646

TITLE: Increased Anti-P-glycoprotein Activity of Baicalein by Alkylation on the A Ring

AUTHOR(S): Lee, Yashang; Yeo, Hosup; Liu, Shwu-Huey; Jiang, Zaoli; Savizky, Ruben M.; Austin, David J.; Cheng, Yung-chi

CORPORATE SOURCE: Department of Pharmacology, Yale University School of Medicine, New Haven, CT, 06520, USA

SOURCE: Journal of Medicinal Chemistry (2004), 47(22), 5555-5566
CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:405646

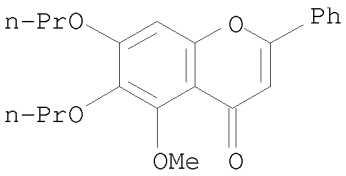
AB The aqueous extract of Scutellariae baicalensis Georgi has inhibitory activity against P-gp 170, a multiple drug resistant gene product. Baicalein, one of the major flavones, was found to be responsible for this activity. The hydroxyl groups of the A ring of baicalein were systematically alkylated

in order to assess the effect of such modifications on the activity against P-gp 170. The impact of the baicalein modifications on activity against the growth of a human nasopharyngeal cancer cell line KB and its P-gp 170 overexpressing cell line KB/MDR were also examined The results indicate that alkylation of R5 of baicalein does not have a major impact on the interaction with P-gp 170, whereas alkylation of R6 or R7 alone or both, could enhance the interaction of baicalein with P-gp 170 as well as the amount of intracellular accumulation of vinblastine, a surrogate marker for the activity of P-gp 170 pump of KB/MDR cells. In this case, the optimal linear alkyl functionality is a Pr side chain. These modifications could also alter the activity of compds. inhibiting cell growth. Among the different compds. synthesized, the most potent mol. against P-gp 170 is 5-methoxy-6,7-dipropyloxyflavone. Its inhibitory activity against P-gp 170 is approx. 40 times better, based on EC50 (concentration of the compound enhancing 50% of the intracellular vinblastine accumulation in the KB/MDR cells) and 3 times higher, based on Amax (the intracellular vinblastine accumulation of the KB/MDR cells caused by the compound) as compared to baicalein. One compound is also a more selective inhibitor than baicalein against P-gp 170, because its cytotoxicity is less than that observed for baicalein. The growth inhibitory IC50 of the compound against KB and KB/MDR cells are about the same, suggesting that compound 23 is unlikely to be a substrate of P-gp 170 pump. Acetylation of R6, R7 or both could also decrease EC50 and increase Amax. Acetylated compds. are more toxic than baicalein, and their potency against cell growth is compromised by the presence of P-gp 170, suggesting that these compds. are substrates of P-gp 170. Benzylation of R6 or R7 but not both also enhanced anti-P-gp170 activity and potency against cell growth; however, the presence of P-gp 170 in cells did not have an impact on their sensitivity to these mols., suggesting that the benzylated compds. are inhibitors but not substrates of P-gp 170, and perhaps have a different mechanism of action. In conclusion, the substitutions of R6 and R7 hydroxyl groups by alkoxy groups, acetoxy groups, or benzyloxy groups could yield compds. with different modes of action against P-gp 170 with different mechanisms of action against cell growth.

IT **792923-69-4P**
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(increased anti-P-glycoprotein activity of baicalein by alkylation on A ring)

RN 792923-69-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-methoxy-2-phenyl-6,7-dipropoxy- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT